

REMARKS/ARGUMENTS

STATUS OF THE CLAIMS

The Examiner has withdrawn Claims 115-119, 121 and 123-125 as being drawn to a non-elected species. Applicants have cancelled Claims 17-24 and 27. Accordingly, the rejections of Claims 17-24 and 27 are moot. Claims 5, 7-13, 25, and 28-111 were previously cancelled. Claims 1-4, 6, 14-16, 26, 112-114, 120 and 122 are pending. Applicants respectfully request reconsideration and allowance of the pending claims.

CLAIM REJECTIONS – 35 U.S.C. § 102

Independent Claims 1 and 114

Independent Claims 1 and 114 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Carter (U.S. Patent No. 2,453,969).

Amended Claim 1 calls for, among other things:

“...means for limiting coupled to at least one of the lower end of the pylon and the upper leg throughout a gait cycle of the amputee, the means for limiting also coupled to at least one of the lower leg and the prosthetic foot throughout a gait cycle of the amputee, the means for limiting at least partially defining a maximum displacement between the upper leg and the lower leg.”

Amended Claim 114 calls for, among other things:

“...a limit device coupled to at least one of the lower end of the pylon and the upper leg throughout a gait cycle of the amputee, the limit device also coupled to at least one of the lower leg and the prosthetic foot throughout a gait cycle of the amputee, the limit device at least partially defining a maximum displacement between the upper leg and the lower leg.”

Carter discloses a first artificial limb (illustrated in Figures 1-3) and a second artificial limb (illustrated in Figures 4-6). The first artificial limb includes a rearwardly-extending snubber plate 11 that is positioned below a clamping plate 8. The snubber plate 11 includes a terminal end that extends rearwardly and upwardly to provide a snubber finger 12. The first artificial limb also includes a heel plate 26 that is bent forwardly and downwardly to form a snubber keeper 29 "which will overlie the snubber finger 12 for limiting the forward and rearward rocking movement between the calf portion and the foot portion of the artificial limb" (Carter, Col. 3, lines 11-14). Similarly, the second artificial limb shown in Figures 4-6 includes a heel plate 53 that terminates in the forwardly and downwardly extended snubber keeper 54 to be engaged by the rearwardly and upwardly extending rubber finger 55 formed on the end of clamping plate 55'.

As shown in Figures 1 and 4 of Carter, the snubber finger 12, 55 is not coupled to the snubber keeper 29, 54 throughout a gait cycle of the amputee. The first artificial limb includes coil springs 5 and 6, and the second artificial limb includes U-shaped springs 40, which allow the calf portion 1, 31 to move relative to the foot portion 23, 42 during a gait cycle (i.e., the rearward terminal ends of coils 5 and 6 move relative to one another and the rearward terminal ends of the springs 40 move relative to one another during a gait cycle). The artificial limbs disclosed by Carter are designed to allow a "flexible and resilient connection between said calf portion and said foot portion" and to "permit relative forward and backward angular movement between said portions when in use" (Carter, Col. 1, lines 29-33).

If the snubber finger 12, 55 of Carter was coupled to the snubber keeper 29, 54 throughout a gait cycle, the rearward terminal ends of the springs 5, 6 and 40 would not be allowed to move relative to one another, the elasticity of the springs 5, 6 and 40 would not be exploited, and the calf portion would not be allowed to move forward, backward, and angular relative to the foot portion during the gait cycle. Thus, if the snubber finger 12, 55 and the snubber keeper 29, 54 were coupled together throughout a gait cycle, movement of the calf portion relative to the foot portion would be limited, and the artificial limbs disclosed by Carter would not function as intended.

Thus, Carter does not disclose a “means for limiting” as required by Claim 1 or a “limit device” as required by Claim 114 that is both “coupled to at least one of the lower end of the pylon and the upper leg throughout a gait cycle of the amputee” and “coupled to at least one of the lower leg and the prosthetic foot throughout a gait cycle of the amputee. Therefore, independent Claims 1 and 114 and dependent Claims 2-4, 6, 14-16, 112, and 115-116 are allowable.

Dependent Claims 2-4, 6, 14-16 and 112

Dependent Claims 2-4, 6, 14-16, and 112 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Carter. Dependent Claims 2-4, 6, 14-16 and 112 are each ultimately dependent from Claim 1 and are therefore allowable for the reasons set forth above with respect to Claim 1. Claims 2-4, 6, 14-16 and 112 also specify additional patentable subject matter not specifically discussed herein.

CLAIM REJECTIONS – 35 U.S.C. § 103

Independent Claims 26 and 120

Independent Claims 26 and 120 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Carter.

Claim 26 calls for, among other things:

“adjusting the means for limiting to change the maximum displacement between the upper leg and the lower leg.”

Claim 120 calls for, among other things:

“adjusting the limit device to change the maximum displacement between the upper leg and the lower leg.”

Carter teaches a solid, rigid heel plate 26, 53 that functions to limit forward and rearward angular movement between a calf portion and a foot portion of an artificial limb when in use. As

describe above with respect to Claims 1 and 114, the snubber keeper 29, 54 of the heel plate 26, 53 is shaped to limit such forward and rearward movement by interacting with a snubber finger 12, 55. In order to effectively limit forward and rearward movement, the heel plate 26, 53 must be rigid and non-adjustable. Furthermore, even if tightening screws or bolts 50 (see Figure 4 of Carter) adjusts the position of the snubber keeper 54 relative to the snubber finger 55 (and Applicants do not concede that it does), tightening the screws or bolts 50 does not include making an adjustment to the heel plate 53, which is a solid and rigid structure.

Because the rigidity of the heel plate 26, 53 is critical to its intended function (i.e., limiting the forward and rearward movement of the calf portion relative to the foot portion), one of ordinary skill in the art would not use an adjustable heel plate 26, 53 in the artificial limbs taught by Carter. Accordingly, Carter does not teach, describe or suggest “adjusting the means for limiting” as required by Claim 26 or “adjusting the limit device” as required by Claim 120 “to change the maximum displacement between the upper leg and the lower leg.” Therefore, independent Claims 26 and 120 and dependent Claims 113 and 122 are allowable.

Dependent Claims 113 and 122

Dependent Claims 113 and 122 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Carter. Dependent Claims 113 and 122 depend from Claims 26 and 120, respectively, and are therefore allowable for the reasons set forth above with respect to Claims 26 and 120. Claims 113 and 122 also specify additional patentable subject matter not specifically discussed herein.

OBVIOUSNESS-TYPE DOUBLE PATENTING

Claims 1-4, 6, 14-16, 26, 112-114, 120 and 122 stand rejected under the judicially-created doctrine of obviousness-type double patenting as being unpatentable over Claim 1 of U.S. Patent No. 5,800,568. Therefore, a timely-filed terminal disclaimer in compliance with 37 C.F.R. § 1.321(c) is submitted herewith to obviate the judicially-created doctrine of obviousness-type double patenting rejection for Claims 1-4, 6, 14-16, 26, 112-114, 120 and 122.

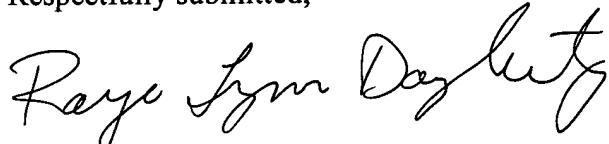
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Claims 1-4, 6, 14-16, 112 and 114 also stand rejected under the judicially-created doctrine of obviousness-type double patenting as being unpatentable over the claims of U.S. Patent No. 6,350,286. Therefore, a timely-filed terminal disclaimer in compliance with 37 C.F.R. § 1.321(c) is submitted herewith to obviate the judicially-created doctrine of obviousness-type double patenting rejection for claims 1-4, 6, 14-16, 112 and 114.

CONCLUSION

In view of the foregoing, Applicants respectfully request entry of the amendment and allowance of pending Claims 1-4, 6, 14-16, 26, 112-114, 120 and 122.

Respectfully submitted,



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